

Form PTO-1449

U.S. Department of Commerce  
Patent and Trademark OfficeAtty. Docket  
09531/005001Serial No.  
09/302,239INFORMATION DISCLOSURE  
STATEMENT BY APPLICANTApplicant:  
Gary L. Nelsestuen

(37 CFR 1.98(b))

Filing Date:  
April 29, 1999Group:  
1646

## U.S. PATENT DOCUMENTS

Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing Date
FM	AA	5,288,629	02/22/94	Berkner	435	240.2	
FM	AB	5,504,064	04/02/96	Morrissey et al.	514	8	
FM	AC	5,580,560	12/03/96	Nicolaisen et al.	424	94.64	

## FOREIGN PATENT DOCUMENTS

		Document Number	Date	Country	Class	Subclass	Translation Yes No
FM	AD	0 296 413	12/28/88	European			
FM	AE	0 354 504	02/14/90	European			

## OTHER DOCUMENTS - Including Author, Title, Date, Pertinent Pages, Etc.

6-17-92 FM	AF	Evans et al., "How Important are proline 22 and the 41-45 Helical stack to Membrane Binding by Bovine Prothrombin?", <u>Protein Sci.</u> , 1996, 5:Suppl. 1, 163, Abstract, #606-S.
6-17-92 HS	AG	Broze Jr. et al., "Monoclonal Anti-human Factor VII Antibodies", <u>J. Can. Invest.</u> , 1985, 76:937-946.
HS	AH	Christiansen et al., "Hydrophobic Amino Acid Residues of Human Anticoagulation Protein C That Contribute to Its Functional Binding to Phospholipid Vesicles", <u>Biochem.</u> , 1995, 34:10376-10382.
FM	AI	Zhang et al., "Role of Individual $\gamma$ -Carboxyglutamic Acid Residues of Activated Human Protein C in Defining its In Vitro Anticoagulant Activity", <u>Blood</u> , 1992, 80(4):942-952.
FM	AJ	Ratcliffe et al., "The Importance of Specific $\gamma$ -Carboxyglutamic Acid Residues in Prothrombin", <u>J. Biol. Chem.</u> , 1993, 268(32):24339-24345.
FM	AK	Persson et al., "Site-directed mutagenesis but not $\gamma$ -carboxylation of glu-35 in factor VIIa affects the association with tissue factor", <u>FEBS Letters</u> , 1996, 385(3):241-243.
FM	AL	Shah et al., "Manipulation of the membrane binding site of vitamin K-dependent proteins: Enhanced biological function of human factor VII", <u>Proc. Natl. Acad. Sci. USA</u> , 1998, 95(8):4229-4234.
FM	AM	Zhang et al., "The Contributions of Individual $\gamma$ -Carboxyglutamic Acid Residues in the Calcium-dependent Binding of Recombinant Human Protein C to Acidic Phospholipid Vesicles", <u>J. Biol. Chem.</u> , 1993, 268(16):12040-12045.
FM	AN	Dahlback, "Inherited Thrombophilia: Resistance to Activated Protein C as a Pathogenic Factor of Venous Thromboembolism", <u>Blood</u> , 1995, 85(3):607-614.
FM	AO	Bauer, "Treatment of Factor VII Deficiency with Recombinant Factor VIIa", <u>Haemostasis</u> , 1996, 26(Suppl. 1):155-158.
FM	AP	Arnljots et al., "Prevention of experimental arterial thrombosis by topical administration of active site-inactivated factor VIIa", <u>J. Vasc. Surg.</u> , 1997, 25(2):341-346.

Examiner

F. Moegle

Date Considered

3/13/01

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with any communication.

Form PTO-1449	U.S. Department of Commerce Patent and Trademark Office	Atty. Docket 09531/005001	Serial No. 09/302,239
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (37 CFR 1.98(b))		Applicant: Gary L. Nelsestuen	
		Filing Date: April 29, 1999	Group: 1646

## U.S. PATENT DOCUMENTS

Examiner Initial	Document Number	Date	Name	Class	Subclass	Filing Date
BA						

## FOREIGN PATENT DOCUMENTS

	Document Number	Date	Country	Class	Subclass	Translation Yes No
BB						

## OTHER DOCUMENTS - Including Author, Title, Date, Pertinent Pages, Etc.

FM	BC	Fiore et al., "The Biochemical Basis for the Apparent Defect of Soluble Mutant Tissue Factor in Enhancing the Proteolytic Activities of Factor VIIa", <u>J. Biol. Chem.</u> , 1994, 269(1):143-149.
FM	BD	Furie et al., "The Molecular Basis of Blood Coagulation", <u>Cell</u> , 1988, 53:505-518.
FM	BE	Hedner et al., "Recombinant Activated Factor VII in the Treatment of Bleeding Episodes in Patients with Inherited and Acquired Bleeding Disorders", <u>Transfus. Med. Rev.</u> , 1993, 7(2):78-83.
FM	BF	Hope et al., "Production of large unilamellar vesicles by a rapid extrusion procedure. Characterization of size distribution, trapped volume and ability to maintain a membrane potential", <u>Biochem. Biophys. Acta</u> , 1985, 812:55-65.
FM	BG	Huang, "Studies on Phosphatidylcholine Vesicles. Formation and Physical Characteristics", <u>Biochem.</u> , 1969, 8(1):344-352.
FM	BH	Lu et al., "The Prothrombinase Reaction: "Mechanism Switching" between Michaelis-Menten and Non-Michaelis-Menten Behaviors", <u>Biochem.</u> , 1996, 35(25):8201-8209.
FM	BI	Matsubara et al., "A Receptor Tyrosine Kinase, Sky, and Its Ligand Gas 6 Are Expressed in Gonads and Support Primordial Germ Cell Growth or Survival in Culture", <u>Dev. Biol.</u> , 1996, 180:499-510.
FM	BJ	McDonald et al., "Comparison of Naturally Occurring Vitamin K-Dependent Proteins: Correlation of Amino Acid Sequences and Membrane Binding Properties Suggests a Membrane Contact Site", <u>Biochem.</u> , 1997, 36:5120-5127.
FM	BK	McDonald et al., "Ionic Properties of Membrane Association by Vitamin K-Dependent Proteins: The Case of Univalency", <u>Biochem.</u> , 1997, 36(50):15589-15598.
FM	BL	Nakagaki et al., "Initiation of the Extrinsic Pathway of Blood Coagulation: Evidence for the Tissue Factor Dependent Autoactivation of Human Coagulation factor VII", <u>Biochem.</u> , 1991, 30(45):10819-10824.
FM	BM	Nelsestuen et al., "Equilibria Involved in Prothrombin and Blood-Clotting Factor X-Membrane Binding", <u>Biochem.</u> , 1977, 16(19):4164-4171.
FM	BN	Nicolaes et al. "A Prothrombinase-based Assay for Detection of Resistance to Activated Protein C", <u>Thromb. Haemost.</u> , 1996, 76(3):404-410.

Examiner <i>F. Moesle</i>	Date Considered <i>3/13/01</i>
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## U.S. PATENT DOCUMENTS

Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing Date
	CA						

## FOREIGN PATENT DOCUMENTS

		Document Number	Date	Country	Class	Subclass	Translation Yes No
	CB						

## OTHER DOCUMENTS - Including Author, Title, Date, Pertinent Pages, Etc.

FM	CC	Nicolaisen et al., "Immunological Aspects of Recombinant Factor VIIa (rFVIIa) in Clinical Use", <u>Thromb. Haemost.</u> , 1996, 76(2):200-204.
FM	CD	Petersen et al., "Quenching of the Amidolytic Activity of One-Chain Tissue-Type Plasminogen Activator by Mutation of Lysine-416", <u>Biochem.</u> , 1990, 29(14):3451-3457.
FM	CE	Rezaie et al., "The Function of Calcium in Protein C Activation by Thrombin and the Thrombin-thrombomodulin Complex Can Be Distinguished by Mutational Analysis of Protein C Derivatives", <u>J. Biol. Chem.</u> , 1992, 267(36):26104-26109.
FM	CF	Schulman et al., "Feasibility of Using Recombinant Factor VIIa in Continuous Infusion", <u>Thromb. Haemost.</u> , 1996, 75(3):432-436.
FM	CG	Shen et al., "Enhancing the Activity of Protein C by Mutagenesis to Improve the Membrane-Binding Site: Studies Related to Proline-10", <u>Biochem.</u> , 1997, 36(51):16025-16031.
FM	CH	Sorensen et al., "Incorporation of an Active Site Inhibitor in Factor VIIa Alters the Affinity for Tissue Factor", <u>J. Biol. Chem.</u> , 1997, 272(18):11863-11868.
FM	CI	Thomsen et al., "Pharmacokinetics of Recombinant Factor VIIa in the Rat - A Comparison of Bio-, Immuno- and Isotope Assays", <u>Thromb. Haemost.</u> , 1993, 70(3):458-464.
FM	CJ	Vallette et al., "Construction of mutant and chimeric genes using the polymerase chain reaction", <u>Nucleic Acids Res.</u> , 1989, 17(2):723-733.
FM	CK	Welsch et al., "Amino-Terminal Alanine Functions in a Calcium-Specific Process Essential for Membrane Binding by Prothrombin Fragment 1", <u>Biochem.</u> , 1988, 27(13):4939-4945.
FM	CL	Freedman et al., "Identification of the Phospholipid Binding Site in the Vitamin K-dependent Blood Coagulation Protein Factor IX", <u>J. Biol. Chem.</u> , 1996, 271(27):16227-16236.
FM	CM	Smirnov et al., "A Chimeric Protein C Containing the Prothrombin Gla Domain Exhibits Increased Anticoagulant Activity and Altered Phospholipid Specificity", <u>J. Biol. Chem.</u> , 1998, 273(15):9031-9040.
FM	CN	Perera et al., "Trans-Cis Isomerization of Proline 22 in Bovine Prothrombin Fragment 1: A Surprising Result of Structural Characterization", <u>Biochem.</u> , 1998, 37(31):10920-10927.

Examiner <i>F. Mozie</i>	Date Considered <i>3/13/01</i>
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Substitute Form PTO-1449

U.S. Department of Commerce  
Patent and Trademark Office

Attorney's Docket No.

09531-005001

Application No.

09/302,239

**Information Disclosure Statement  
by Applicant**

(Use several sheets if necessary)

Applicant

Gary L. Nelsestuen

Filing Date

April 29, 1999

Group Art Unit

1646

(37 CFR § 1.38(b))

**U.S. Patent Documents**

Examiner Initial	Desig. ID	Patent Number	Issue Date	Patentee	Class	Subclass	Filing Date If Appropriate
FM	AA	5,788,965	08/04/98	Berkner et al.	424	94.64	
FM	AB	5,817,788	10/06/98	Berkner et al.	536	23.2	
FM	AC	5,824,639	10/20/98	Berkner	514	12	
FM	AD	5,833,982	11/10/98	Berkner et al.	424	94.64	
FM	AE	5,861,374	01/19/99	Berkner et al.	514	8	
FM	AF	6,017,882	01/25/00	Nelsestuen	514	12	
	AG						
	AH						
	AI						
	AJ						
	AK						

**Foreign Patent Documents or Published Foreign Patent Applications**

Examiner Initial	Desig. ID	Document Number	Publication Date	Country or Patent Office	Class	Subclass	Translation	
							Yes	No
	AL							
	AM							
	AN							
	AO							
	AP							

**Other Documents (include Author, Title, Date, and Place of Publication)**

Examiner Initial	Desig. ID	Document
	AQ	
	AR	
	AS	
	AT	

Examiner Signature

F. Moe

Date Considered

3/13/01

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